

CONFIRMATION

From the:

INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

Τo.

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Sign 1105

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

0K. C/M 22/16/0"

Date of mailing day/month/year

1 6 JUN 2004

Applicant's or agent's file reference

1237.P002PCT

IMPORTANT NOTIFICATION

International Application No. PCT/SG2003/000076

International Filing Date
11 April 2003

Priority Date

12 September 2002

Applicant

MALAYSIA WOODWORKING (PTE) LTD et al.

- 1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translations to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide

Name and mailing address of the IPEA/AU

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1237.P002PCT	FOR FURTHER See Notification of Transmittal of International Preliminary ACTION Examination Report (Form PCT/IPEA/416).				
International Application No.	International Filing D (day/month/year)	Priority Date (day/month/year)			
PCT/SG2003/000076	11 April 2003	12 September 2002			
International Patent Classification (IPC) or	national classification	and IPC			
Int. Cl. 7 E06B 3/70, 3/96					
Applicant					
MALAYSIA WOODWORKING	(PTE) LTD et al.				
 This international preliminary examina and is transmitted to the applicant acco 		epared by this International Preliminary Examining Authority			
2. This REPORT consists of a total of 3 sheets, including this cover sheet.					
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).					
These annexes consist of a total of 4 sheet(s).					
3. This report contains indications relating	g to the following items	x: .			
I X Basis of the report					
II Priority					
	·.	velty, inventive step and industrial applicability			
. =		verty, inventive step and industrial applications			
	Lack of unity of invention				
11 .	V X Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
VI Certain documents cited	Certain documents cited				
VII Certain defects in the inte	Certain defects in the international application				
VIII Certain observations on the	Certain observations on the international application				
Date of submission of the demand	. 1,	Date of completion of the report			
17 March 2004		11 June 2004			
Name and mailing address of the IPEA/AU		Authorized Officer			
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/SG2003/000076

L.	I. Basis of the report				
1.	1. With regard to the elements of the international application:*				
	the international	application as originally filed.			
	X the description,	pages 1-12 as originally filed,			
		pages , filed with the demand,			
		pages , received on with the letter of			
	X the claims,	pages , as originally filed,			
	•	pages , as amended (together with any statement) under Article 19,			
		pages, filed with the demand,			
	[· · · ·]	pages 13-16 received on 24 May 2004 with the letter of 24 May 2004			
		pages 1/7-7/7 as originally filed,			
	•	pages , filed with the demand,			
		pages, received on with the letter of ng part of the description:			
		pages , as originally filed			
İ	•	pages , filed with the demand pages , received on with the letter of			
2.	•				
۷.	which the international a	uage, all the elements marked above were available or furnished to this Authority in the language in application was filed, unless otherwise indicated under this item.			
	These elements were ava	ailable or furnished to this Authority in the following language which is:			
		translation furnished for the purposes of international search (under Rule 23.1(b)).			
	the language of pu	ablication of the international application (under Rule 48.3(b)).			
	the language of the and/or 55.3).	e translation furnished for the purposes of international preliminary examination (under Rules 55.2			
•					
3.	With regard to any nucle preliminary examinat	eotide and/or amino acid sequence disclosed in the international application, the international ion was carried out on the basis of the sequence listing:			
		nternational application in written form.			
. •	=	the international application in computer readable form.			
		ently to this Authority in written form.			
	_	ently to this Authority in computer readable form.			
		t the subsequently furnished written sequence listing does not go beyond the disclosure in the			
	international applic	cation as filed has been furnished.			
	The statement that been furnished	the information recorded in computer readable form is identical to the written sequence listing has			
4.	X The amendments h	have resulted in the cancellation of:			
	the descrip	ption, pages			
	X the claim,	Nos. 3A			
	the drawin	ngs, sheets/fig.			
5.	This report has bee	en established as if (some of) the amendments had not been made, since they have been considered to			
	go beyond the discl	losure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**			
•	Replacement sheets which this report as "originally	h have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).			
••		ontaining such amendments must be referred to under item 1 and annexed to this report			
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/SG2003/000076

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

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1.	1. Statement				
	Novelty (N)	Claims 1-20	YES		
		Claims	NO ·		
	Inventive step (IS)	Claims 1-20	YES		
		Claims	NO		
	Industrial applicability (IA)	Claims 1-20	YES		
		Claims	NO		

2. Citations and explanations (Rule 70.7)

Claims 1-20 meet the criteria set out in the PCT Article 3(2)-(4), because none of the prior art documents teaches or fairly suggests a method and an apparatus for assembling a 2-piece skin door comprising a bottom skin and a top skin wherein each of the bottom and top skins' longitudinal edges have been bent and folded to complementarily hem each other in an interlocking manner to form a seam, the method including holding the bottom skin in an upwardly open pan manner to form the full thickness of the door edge and the ends of the bent portion is folded outwardly to form a downward flange which is flush with the outer door edge, holding the top skin in an inverted pan manner wherein its folded and hemmed edges are bent downwardly to form less than the full thickness of the door edge and the ends of the bent portion is folded inwardly to form an upward flange aligned with the corresponding edges of the bottom skin, and pushing the top skin to insert said top skin's folded edge into the bottom skin's corresponding folded edge to form said interlocking seam and thus the door edge, wherein the top skin's longitudinal edges form about half the thickness of the door edge.

CLAIMS

- 1. A method for assembling a 2-piece skin door comprising a bottom skin and a top skin wherein each of the bottom and top skins' longitudinal edges have been bent and folded to complementarily hem each other in an interlocking manner to form a seam, the method including:
- holding the bottom skin in an upwardly open pan manner to form the full thickness of the door edge and the ends of the bent portion is folded outwardly to form a downward flange which is flush with the outer door edge;
- holding the top skin in an inverted pan manner wherein its folded and hemmed edges are bent downwardly to form less than the full thickness of the door edge and the ends of the bent portion is folded inwardly to form an upward flange aligned with the corresponding edges of the bottom skin; and
 - pushing the top skin to insert said top skin's folded edge into the bottom skin's corresponding folded edge to form said interlocking seam and thus the door edge;
 wherein
- 25 the top skin's longitudinal edges form about half the thickness of the door edge.
- 2. A method according to Claim 1 wherein the bottom skin is held securely on a substantially planar surface with at least one securing means; the at least one securing means fastening onto at least one protruding plate welded onto the inside of the bottom skin and further provided with eyelets from the rail edges of said skin for hook means to fasten thereunto.
- 3. A method according to Claim 1 wherein the top skin is provided with at least a protrusion from the rail edge of said skin and pulling means is provided to fasten onto said protrusion and to pull said skin in alignment towards the bottom skin.
- 4. A method according to Claim 3 wherein the protrusion is a protruding plate welded onto the inside of the top skin and provided with eyelets for hook means to fasten thereunto.

- 5. A method according to any one of Claims 3 and 4 wherein the pulling means comprises at least a winch capable of winding a cable attached to said hook means to pull said top skin.
- 6. A method according to any one of Claims 3 to 5 wherein the pulling means comprises at least a winch capable of winding a cable attached to a bar arranged to push the top skin in alignment towards the bottom skin.

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- 7. A method according to Claims 5 and 6 wherein a first winch pulling the top skin is employed in conjunction with a second winch pulling a bar to push said top skin.
- 8. A method according to Claim 7 wherein the second winch is mounted distal to the full length of the bottom skin underneath the planar surface which provides for a break in the surface for the flow of cable being winched by said second winch.
- 9. A method according to Claim 8 wherein the second which is substituted with a reversible rotation motor and the cable forms a loop around the distal half of the planar surface so that the pushing bar may be withdrawn from a completely assembled door back to the distal end to enable the next top skin to be placed onto said distal planar surface.
- 10. An apparatus for assembling a 2-piece skin door comprising a bottom skin and a top skin wherein each of the bottom skins' longitudinal edges have been bent and folded to mutually hem each other to form a door edge seam when slotted into one another, said apparatus including:
 - a planar surface area sufficiently for laying each a bottom and a top skin longitudinally end to end, said surface comprising
 - a proximal surface portion for laying the bottom skin in an upwardly open pan manner;
 - a distal surface portion for laying the top skin in an inverted pan manner;
- fastening means for securely holding the bottom skin
 onto said proximal surface with its folded edge in alignment with the corresponding edges of the top skin;

- means for moving the aligned top skin to insert said top skin's folded edge into the bottom skin's corresponding folded edge to form said door edge seam.
- 5 11. An apparatus according to Claim 10 wherein the fastening means comprises hook, cable, and screw means to hold onto protrusions from the bottom skin.
- 12. An apparatus according to Claim 10 wherein the means for moving the top skin comprises at least a winch mounted below the proximal end of the planar surface and is capable of moving said top skin so that said top skin's folded edges may be received into the corresponding bottom skin's folded edges by winding a cable attached to a hook means fastened to a protrusion from the proximal rail edge of said top edge.
- 13. An apparatus according to any of Claims 10 and 12 wherein the protrusion comprises at least one plate welded
 20 onto the rail edge of the top skin to protrude therefrom.
 - 14. An apparatus according to Claim 10 wherein the means for moving the top skin comprises at least a winch mounted below the proximal end of the planar surface and is capable of pushing the top skin so that said top skin's folded edges maybe received into the corresponding bottom skin's folded edges by winding a cable attached to an end push bar to push the distal rail edge of said top skin.
- 15. An apparatus according to Claim 14, the planar surface is provided with an opening between the proximal and distal surface portions to allow for cables to be pulled by a winch mounted below the distal surface portion.
- 35 16. An apparatus according to Claim 15 wherein the proximal and distal surface portions are each detached bench surface portions.
- 17. An apparatus according to any one of Claims 10, 15 and 16 wherein the means for moving the top skin comprises the end push bar connected to an endless cable pulled by a reversible motor.
- 18. An apparatus according to any one of Claims 10 to 17 wherein guide means are provided to secure and align the bottom skin to receive the top skin and to guide the end push bar's movement.

- 19. A door assembled according to a method of any one of Claims 1 to 9.
- 20. A door assembled with an apparatus according to any one of Claims 10 to 19.